

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Inquiry Concerning Deployment of Advanced	)	GN Docket No. 19-285
Telecommunications Capability to All	)	
Americans in a Reasonable and Timely	)	
Fashion	)	

**COMMENTS  
of  
NTCA–THE RURAL BROADBAND ASSOCIATION**

NTCA–The Rural Broadband Association (“NTCA”)<sup>1</sup> hereby submits these comments in response to the Notice of Inquiry (“*NOP*”)<sup>2</sup> issued in the above-captioned docket seeking comment on whether “advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”<sup>3</sup> Given the lengthy cycles involved in the investment in and deployment of broadband-capable networks especially in rural America, NTCA urges the Commission to take a long-term view of the sustainability of broadband networks and affirm its previously adopted conclusion<sup>4</sup> that mobile broadband services, while

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<sup>1</sup> NTCA is an industry association composed of nearly 850 rural local exchange carriers (“RLECs”). While these entities were traditional rate-of-return-regulated telecommunications companies and “rural telephone companies” as defined in the Communications Act of 1934, as amended, all of NTCA’s members today provide a mix of advanced telecommunications and broadband services, and many also provide video or wireless services to the rural communities they serve.

<sup>2</sup> *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, Fifteenth Broadband Deployment Report Notice of Inquiry, GN Docket No. 19-285, FCC 19-102 (rel. Oct. 25, 2019) (“*NOP*”).

<sup>3</sup> *Id.*, ¶ 3, citing 47 U.S.C. §1302(b).

<sup>4</sup> *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 18-238, 2019 Broadband Deployment Report, FCC 19-44 (rel. May 29, 2019), ¶ 11; *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 17-199, 2018 Broadband Deployment Report, FCC 18-10 (rel. Feb. 2, 2018), ¶ 18.

providing significant value of their own and essential for many uses, are not a substitute for fixed broadband services.

The *NOI* proposes to conduct the instant inquiry proceeding from the same framework as used in 2019 – that is, by examining the state of the broadband market based on the analytical construct that fixed and mobile broadband services are complements to, rather than substitutes for, one another.<sup>5</sup> This approach is well-founded for several reasons.

As an initial matter, in rural areas particularly, mobile broadband offers a very different experience than fixed broadband service. While mobile coverage is typically more reliable in well-populated centers, service coverage in rural areas often remains spotty, perhaps more reliable on main roads or near small town centers but far less so in outlying areas where many rural consumers reside or work or travel. Even once the Mobility Fund distributes support and improves the availability of service in some of these rural areas, the prospect of relatively lower-speed and/or usage-limited mobile broadband service – 4G LTE at a time when the nation is pressing full-speed ahead toward 5G deployment goals – is hardly enticing to the rural consumer or a promising substitute for the kinds of capacities and capabilities that a far more robust and reliable fixed connection can provide. Moreover, even if faster speeds were to become available in rural areas, to the extent that additional consumers were to begin to rely upon and make increasing use of such mobile services, the underlying shared capacity networks will experience additional strain, in turn affecting consumers’ ability to utilize the “advanced” services that many Americans with access to more robust fixed connections already enjoy today. Thus, the

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<sup>5</sup> *NOI*, ¶¶ 8-9.

Commission should not backslide on the conclusion it has consistently reached in the past<sup>6</sup> and now view mobile broadband service as a true substitute for a fixed connection.

Indeed, mobile service even once available continues to be a different experience from a pricing and capacity perspective from fixed broadband access for consumers in rural and urban areas alike. While the current trend of “unlimited” data plans by mobile wireless carriers may be a positive for many consumers,<sup>7</sup> such plans can still result in providers limiting actual data usage to ensure sufficient capacity for all users.<sup>8</sup> A broadband connection that limits, for example, the throughput of a student attempting to complete a homework assignment (or causes a degraded quality of service once a limit has been reached) is simply not comparable to the fixed connections that do not impose such limits or create such impairments.

The price at which a usage-limited mobile wireless connection comes and the fact that even “unlimited” plans often have limitations are factors here as well. One nationwide mobile wireless provider recently announced the availability of 100 GB of data per month for an “unlimited” plan – before any potential throttling – for \$85 dollars per month.<sup>9</sup> As a comparison, the Commission’s 2019 Urban Rate Survey identifies the rate benchmark for a 25/3 Mbps fixed service with a 200 GB usage allowance as \$77.65, while a truly unlimited 25/3 Mbps fixed

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<sup>6</sup> See *Id.*, fn 4.

<sup>7</sup> In addition, such plans may no longer be available as mobile wireless providers are forced to recover an increased portion of their costs from end-users consuming additional data if additional rural users are forced to rely on mobile service as their only option.

<sup>8</sup> See, “Best unlimited data plans in the US” (September 2019), Android Authority (Sep. 13, 2019) (noting that most nationwide mobile wireless carriers reserve the right to throttle consumer speeds upon reaching a certain amount of data usage per month, often between 50 and 100 GB), available at <https://www.androidauthority.com/best-unlimited-data-plans-700314/>.

<sup>9</sup> AT&T’s priciest “unlimited” plan now allows 100GB+ of un-throttled data, ars TECHNICA (Oct. 31, 2019), available at: <https://arstechnica.com/information-technology/2019/10/atts-priciest-unlimited-plan-now-allows-100gb-of-un-throttled-data/>

service plan costs only five dollars more per month (\$82.66).<sup>10</sup> And, it is worth noting that these figures are statistically adjusted by standard deviations to reflect a “reasonably comparability” benchmark; it appears that the average rate for 25/3 Mbps unlimited fixed service is in fact less than \$75 per month<sup>11</sup> – or roughly \$10 per month less than a capped mobile data service. Considering that usage limits and throttling of data at the point a limit is reached are not common features of fixed broadband service, the fact that the rate at which a nominally “unlimited” mobile service is available is more than \$10 higher speaks to the relative and disparate value of a fixed connection.

In addition to pricing and capacity differences, types of use factor into this discussion as well. A relatively lower-speed, lower-capacity mobile broadband connection suitable for social media or similar “on-the-go” uses is not as suitable for many, more involved uses at home or work. In addition, the prospect of having to rely on a mobile connection only for access in a community is unlikely to attract consumers looking to relocate to a rural area while retaining their existing job and transitioning to becoming a remote employee. Similarly, a declaration that mobile wireless service is “good enough” is not likely to be good enough for businesses looking to expand or relocate their operations to a rural area. These businesses look for educated workforces and sufficient infrastructure to meet their needs, and the quality of broadband services and its ability to meet their needs is part of that infrastructure they consider. As a report

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<sup>10</sup> Wireline Competition Bureau Announces Results of 2019 Urban Rate Survey for Fixed Voice and Broadband Services, Posting of Survey Data and Explanatory Notes, and Required Minimum Usage Allowance for Eligible Telecommunications Carriers, WC Docket No. 10-90, Public Notice, DA 18-1280 (rel. Dec. 20, 2018).

<sup>11</sup> 2019 Urban Rate Survey results, available at: <https://www.fcc.gov/economics-analytics/industry-analysis-division/urban-rate-survey-data-resources>.

commissioned by the Communications Workers of America found,<sup>12</sup> mobile broadband services are often not suited to the types of applications that are of interest to business customers. Noting that uses such as basic web browsing and email are suitable for mobile connections, the report states that:

[W]hen pushed beyond a critical point, slowdowns or breaks in mobile network service cause applications such as streaming video to experience severe delays or reductions in quality. This might merely be an annoyance for a Netflix subscriber trying to watch a movie, but can mean a loss of revenue for a business or a loss of productivity for a student.<sup>13</sup>

Moreover, as the paper also found:

[H]igher-tech businesses are saving money on infrastructure and staff by moving local applications to the cloud—which places significant demands on the businesses’ internet connections. Some cloud-based applications, such as computer-aided design (CAD) and geographic information systems (GIS), continuously transfer large data files as employees work. Without a consistently fast network connection, these applications may be slow or unusable. Nightly tasks, such as computer backups or software updates, may not be completed before employees return to the office, affecting productivity the next day.<sup>14</sup>

With this in mind, it is difficult to see why a business customer would choose to relocate to a rural area where a mobile connection is their only option.

Indeed, the use cases for a broadband connection and the demands users are placing on networks now and what can be expected in the future are important considerations. With respect to the value that consumers receive related to the use cases for a broadband connection, the Fiber Broadband Association’s analysis in the recent context of the Rural Digital Opportunity Fund

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<sup>12</sup> *Mobile Broadband Service Is Not an Adequate Substitute for Wireline*, CTC Technology & Energy (October 2017), available at: [https://www.cwa-union.org/sites/default/files/ctc\\_mobile\\_broadband\\_white\\_paper\\_-\\_final\\_-\\_20171004.pdf](https://www.cwa-union.org/sites/default/files/ctc_mobile_broadband_white_paper_-_final_-_20171004.pdf)

<sup>13</sup> *Id.*, pp. 17-18

<sup>14</sup> *Id.*, p. 18.

(“RDOF”) is instructive.<sup>15</sup> As one example, FBA states that a study it commissioned found that “‘telecommuting’ has an annual household monetary benefit range of \$250-300 from transportation savings and reduced facilities cost while cloud storage and computing has an annual monetary benefit range of \$20-30 from reduced direct spending on computing capacity.”<sup>16</sup> “Remote health and learning” has an annual monetary benefit range of \$50-100 stemming from reduced transportation costs and direct costs of office visits.<sup>17</sup> The importance of remote health and learning is a particularly important consideration in rural areas that have experienced troubling levels of hospital closings<sup>18</sup> and could benefit from available telemedicine facilities made possible by robust fixed connections. Ultimately, these uses cases (telecommuting, cloud computing, telemedicine for remote areas) are, as FBA notes, dependent on a high-capacity broadband connection.<sup>19</sup> As noted above, even once the Mobility Fund distributes support and improves the availability of service in some of these rural areas, the relatively lower-speed and/or usage-limited mobile broadband service that will become available is hardly a substitute for the kinds of capacities and capabilities that a far more robust and reliable fixed connection can provide to respond to and facilitate such use cases.

The Commission’s view of whether mobile service is a true substitute for a fixed connection should be further informed by a forecast of consumer demand for data over the life

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<sup>15</sup> Comments of the Fiber Broadband Association (“FBA”), WC Docket Nos. 19-126 and 10-90 (fil. Sept. 20, 2019), p. 8.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> Rural hospital closings cause mortality rates to rise, study finds, NBC News (Sept. 6, 2019), available at: <https://www.nbcnews.com/news/us-news/rural-hospital-closings-cause-mortality-rates-rise-study-finds-n1048046>.

<sup>19</sup> FBA, pp. 12-13.

cycle of the networks now being built. In comments in the RDOF proceeding NTCA pointed to a Cisco study that “estimated that U.S. IP traffic will increase at a compound average growth rate of 21 percent through 2022, with the startling notation that ‘[b]y 2022, the gigabyte equivalent of all movies ever made will cross the United States’ IP networks every 3 minutes.’”<sup>20</sup> As NTCA’s comments went on to discuss, “Cisco predicts that ‘the average Internet user will generate 277.9 gigabytes of Internet traffic per month by 2022, up 182% from 98.7 gigabytes in 2017, a [compound average growth rate] of 23%.’”<sup>21</sup> Again, the shared capacity nature of a mobile connection, combined with the relatively lower speeds that consumers can expect via these services, should factor into whether such a connection can keep up with this type of consumer demand for data over the long-term.

Finally, it should also be noted that the Commission has already recognized the distinction between fixed and mobile services in other critical proceedings. Put another way, the fact that the Commission has created a Mobility Fund separate from the Connect America Fund and the RDOF speaks to a common-sense recognition that both categories of service are quite valuable to consumers and are thus both worthy of support under the umbrella of the Universal Service Fund.

To be sure, Congress defines “Advanced Telecommunications Capability” without regard to any transmission media or technology. But this is not a question of media or technology – the question is not a comparison of “wireline” or “wireless.” Fixed services can of course be

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<sup>20</sup> Comments of NTCA–The Rural Broadband Association, WC Docket Nos. 19-126 and 10-90 (fil. Sept. 20, 2019), p. 5, citing Cisco, VNI Highlights Tool (available at: [https://www.cisco.com/c/m/en\\_us/solutions/service\\_provider/vni-forecast-highlights.html#](https://www.cisco.com/c/m/en_us/solutions/service_provider/vni-forecast-highlights.html#)).

<sup>21</sup> *Id.*

delivered wirelessly and, in many cases, they are. Rather, the question is whether users view fixed and mobile services as substitutes or complements when they have a real choice among them. There are material differences between the network architecture of fixed and mobile networks, and even the spectrum bands used in fixed and mobile wireless contexts can often differ. Moreover, as noted above, customer utilization often is very different as well. The Commission has therefore had very good reason to recognize the complementary nature of fixed and mobile services, regardless of underlying technology – and the manner in which such services are priced and delivered, the ways in which the underlying networks are architected, and the uses made by consumers and businesses of each all weigh strongly in favor of retaining this distinction as the broadband marketplace is evaluated.



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